I. **Amendments to the Claims** This listing of claims will replace all prior versions of claims in the application.

1. (Currently Amended) A method of manufacturing powder comprising:

providing a metal-containing precursor;

feeding the metal-containing precursor to a reaction zone thereby creating a vapor of the metal-containing precursor;

adding a reactive fluid to the metal-containing precursor in the reaction zone thereby creating a stream comprising vaporized metal-containing precursor and reactive fluid, wherein the metal-containing precursor ~~is selected from the group consisting of metal acetates, metal carboxylates, metal nitrates, metal sulfates, and metal hydroxides~~ comprises metal carboxylate;

~~conducting high temperature~~ processing ~~of~~ the stream ~~at a temperature ranging from 1500 to 4000ºC~~;

cooling the vapor to form a vapor stream comprising nucleated nanoscale powders;

quenching the vapor stream comprising nucleated nanoscale powders thereby preventing agglomeration and grain growth.

2. (Withdrawn) The method of claim 1, wherein the metal-containing precursor is selected from the group comprising an emulsion, fluid, particle-containing liquid slurry, a gas, a solid, a single-phase liquid, a multi-phase liquid, a melt and a fluid mixture.

3. (Canceled)

4. (Previously Presented) The method of claim 1, wherein the metal-containing precursor is a mixture of multiple metal-containing precursors.

5. (Withdrawn) The method of claim 1, wherein the nanoscale powder comprises a metal.

6. (Original) The method of claim 1, wherein the reactive fluid comprises oxygen.

7. (Withdrawn) The method of claim 1, wherein the reactive fluid comprises carbon.

8. (Withdrawn) The method of claim 1, wherein the reactive fluid comprises nitrogen.

9. (Withdrawn) The method of claim 1, wherein the reactive fluid comprises boron.

10. (Withdrawn) The method of claim 1, wherein the reactive fluid comprises hydrogen.

11. (Currently Amended) The method of claim 1, wherein the feeding the metal-containing precursor to the reaction zone comprises [[of]] spraying that enhances heat transfer efficiency, mass transfer efficiency, momentum transfer efficiency, and reaction efficiency.

12. (Original) The method of claim 1, wherein the reaction zone is surrounded by a concentric zone to reduce non-uniformities in heat, mass or momentum transfer.

13. (Currently Amended) The method of claim 1, wherein the ~~conducting high temperature of the stream~~ processing is achieved using one or more of the techniques selected from the group consisting of plasma processes, internal energy, heat of reaction, conduction, convection, radiation, inductive, microwave, electromagnetic, direct electric arc, pulsed electric arc, laser and nuclear.

14. (Original) The method of claim 1, wherein the reacted metal-containing precursor is product of combustion.

15. (Currently Amended) The method of claim 1, wherein the conducting high temperature processing is performed at temperatures greater than [[3000]] 600ºC.

16. (Currently Amended) The method of claim 1 further comprising adding carrier particles to a ~~later~~ stage of the ~~high temperature~~ processing.

17. (Currently Amended) The method of claim [[1]] 32, wherein the harvesting is accomplished using one or more techniques selected from the group consisting of bag filtration, electrostatic separation, membrane filtration, cyclones, impact filtration, centrifugation, hydrocyclones, thermophoresis, magnetic separation, impingement filters, screen filters, fabric filters and scrubbers.

18. (Original) The method of claim 1, wherein the quenching is accomplished using adiabatic expansion.

19. (Original) The method of claim 1, wherein the method includes instrumentation for quality control.

20. (Original) The method of claim 1, wherein the process operates near ambient pressure.

21. (Withdrawn) The method of claim 1, wherein the process operates at a pressure less than 750 mm Hg absolute.

22. (Withdrawn) The method of claim 21, wherein the pressure is achieved using a compressed fluid-based eductor operating on a venturi principle.

23. (Withdrawn) A method of producing nanoscale particles in vacuum wherein the vacuum is achieved using a compressed fluid-based eductor operating on a venturi principle.

24. (Original) The method of claim 1, wherein the powder manufactured comprises nano-dispersed nanoparticles.

25. (Withdrawn) The method of claim 1, wherein the metal-containing precursor comprises nanoscale powder and coarse carrier particles.

26. (Withdrawn) The method of claim 1, wherein the powder manufactured comprises carrier particles comprising a ceramic and attached particles comprising metal.

27. (Original) The method of claim 1, wherein the powder manufactured comprises carrier particles comprising a ceramic and attached particles comprising an alloy.

28. (Withdrawn) The method of claim 1, wherein the powder manufactured comprises carrier particles comprising a ceramic and attached particles comprising an oxide.

29. (Withdrawn) The method of claim 1, wherein the powder manufactured comprises carrier particles comprising a ceramic and attached particles comprising a ceramic.

30. (Withdrawn) A powder manufactured using the method of claim 1.

31. (Previously Presented) The method of claim 1, wherein the metal-containing precursor is a metal carboxylate.

32. (Previously Presented) The method of claim 1, further comprising harvesting the nucleated nanoscale powders.